

IN THE CLAIMS:

1 1. (PREVIOUSLY PRESENTED) Asynchronous connection-oriented transmission
2 network (10) of the ATM network type comprising a plurality of switching nodes (12, 14,
3 16, 18) interconnected by connection lines, each of said switching nodes being associated
4 with a control point being in charge of determining the best route between any source
5 node (12) and any destination node (18) when a connection has to be established there-
6 between by identifying which of the connection lines are eligible based upon the re-
7 quirement of a quality of service;

8 said network being characterized in that each one of said plurality of switching
9 nodes comprises:

10 Control ATM Test Application (CATMTA) means (22) and Deamon ATM Test
11 Application (DATMTA) means (32) so that, at any time, a user interfacing a source node
12 can test the connectivity of a network connection from said source node to a destination
13 node by initiating a connection procedure wherein a call setup message (Fig. 1) is sent by
14 the CATMTA means of said source node to said destination node and the DATMTA
15 means of said destination node send back an acknowledgement message (Fig. 2) to said
16 source node; and

17 said Control ATM Test Application (CATMTA) means (22) comprise means for
18 sending a verification data stream (Fig. 3) to said destination node after receiving said
19 acknowledgement message and said Deamon ATM Test Application (DATMTA) means
20 (32) comprise means for sending back a response data stream after receiving said verifi-
21 cation data stream, said verification and response data streams being used to check the

22 characteristics of the connection previously established between said source node and
23 said destination node.

1 2. (CANCELLED)

1 3. (PREVIOUSLY PRESENTED) Asynchronous connection-oriented transmission
2 network (10) according to claim 1 being an Asynchronous Transfer Mode (ATM) net-
3 work.

1 4. (PREVIOUSLY PRESENTED) Asynchronous connection-oriented transmission net-
2 work (10) according to claim 1 being a Frame Relay network.

1 5. (PREVIOUSLY PRESENTED) Method for triggering the control plane in an asyn-
2 chronous connection-oriented transmission network, comprising the following steps ini-
3 tiated at any time on request by a user interfacing a source node (12):

4 sending from the Control ATM Test Application (CATMTA) means (22) of said
5 source node a call setup message (Fig. 1) for testing the connectivity of a network con-
6 nection to the Daemon ATM Test Application (DATMTA) means (32) of a destination
7 node (18), and

8 sending back an acknowledgement message (Fig. 2) from said DATMTA means
9 of said destination node to said CATMTA means of said source node when the connec-

10 tion has been successfully established between said source node and said destination
11 node; and

12 sending a verification data stream (Fig. 3) from said CATMTA means in said
13 source node (12) to said destination node (18) after receiving said acknowledgement
14 message (Fig. 2), and sending back a response data stream from said DATMTA means in
15 said destination node to said source node, whereby said verification and response data
16 streams are used to check the characteristics of the connection previously established
17 between said source node and said destination node.

1 6. (CANCELLED)

1 7. (PREVIOUSLY PRESENTED) Method according to claim 5, wherein said verifica-
2 tion and response data streams are used to check the end-to-end transit delay of the con-
3 nection previously established between said source node and said destination node.

1 8. (PREVIOUSLY PRESENTED) Method according to claim 5, wherein said verifica-
2 tion and response data streams are used to check whether the bandwidth requested by the
3 user interfacing said source node has been actually allocated for a constant bit rate over
4 the connection previously established between said source node and said destination
5 node.

1 9. (PREVIOUSLY PRESENTED) A method for operating a computer, comprising:
2 sending a call setup message over a computer network to a destination computer;
3 receiving an acknowledgement message from the destination computer indicating
4 that the call setup message was received, the acknowledgement message indicating that a
5 connection through the computer network is established between the computer and the
6 destination computer;
7 sending a verification data stream to the destination computer in response to re-
8 ceiving the acknowledgement message, the verification data stream sent over the connec-
9 tion;
10 receiving a response data stream from the destination computer, the response data
11 stream sent over the connection; and
12 checking a characteristics of the connection in response to the verification data
13 stream and the received response data stream.

1 10. (PREVIOUSLY PRESENTED) The method as in claim 9, further comprising:
2 establishing the connection in an Asynchronous Transfer Mode (ATM) computer
3 network.

1 11. (PREVIOUSLY PRESENTED) The method as in claim 9, further comprising:
2 establishing the connection in a Frame Relay computer network.

1 12. (PREVIOUSLY PRESENTED) The method as in claim 9, further comprising:

2 checking an end-to-end transit delay of the connection using said verification and
3 response data streams.

1 13. (PREVIOUSLY PRESENTED) The method as in claim 9, further comprising:

2 checking whether a bandwidth requested by a user interfacing said computer has
3 been actually allocated for a constant bit rate over the connection using said verification
4 and response data streams.

1 14. (PREVIOUSLY PRESENTED) A computer, comprising:

2 means for sending a call setup message over a computer network to a destination
3 computer;

4 means for receiving an acknowledgement message from the destination computer
5 indicating that the call setup message was received, the acknowledgement message indi-
6 cating that a connection through the computer network is established between the com-
7 puter and the destination computer;

8 means for sending a verification data stream to the destination computer in re-
9 sponse to receiving the acknowledgement message, the verification data stream sent over
10 the connection;

11 means for receiving a response data stream from the destination computer, the
12 response data stream sent over the connection; and

13 means for checking a characteristics of the connection in response to the verifica-
14 tion data stream and the received response data stream.

1 15. (PREVIOUSLY PRESENTED) The computer as in claim 14, further comprising:

2 means for establishing the connection in an Asynchronous Transfer Mode (ATM)
3 computer network.

1 16. (PREVIOUSLY PRESENTED) The computer as in claim 14, further comprising:
2 means for establishing the connection in a Frame Relay computer network.

1 17. (PREVIOUSLY PRESENTED) The computer as in claim 14, further comprising:
2 means for checking an end-to-end transit delay of the connection using said veri-
3 fication and response data streams.

1 18. (PREVIOUSLY PRESENTED) The computer as in claim 14, further comprising:
2 means for checking whether a bandwidth requested by a user interfacing said
3 computer has been actually allocated for a constant bit rate over the connection using said
4 verification and response data streams.

1 19. (PREVIOUSLY PRESENTED) A computer, comprising:
2 a transmitter to send a call setup message over a computer network to a destina-
3 tion computer;
4 a receiver to receive an acknowledgement message from the destination computer
5 indicating that the call setup message was received, the acknowledgement message indi-
6 cating that a connection through the computer network is established between the com-
7 puter and the destination computer;
8 a transmitter to send a verification data stream to the destination computer in re-
9 sponse to receiving the acknowledgement message, the verification data stream sent over
10 the connection;

11 a receiver to receive a response data stream from the destination computer, the
12 response data stream sent over the connection; and

13 a processor to check a characteristics of the connection in response to the verifi-
14 cation data stream and the received response data stream.

1 20. (PREVIOUSLY PRESENTED) The computer as in claim 19, further comprising:

2 the computer network is an Asynchronous Transfer Mode (ATM) computer net-
3 work.

1 21. (PREVIOUSLY PRESENTED) The computer as in claim 19, further comprising:

2 the computer network is a Frame Relay computer network.

1 22. (PREVIOUSLY PRESENTED) The computer as in claim 19, further comprising:

2 means for checking an end-to-end transit delay of the connection using said veri-
3 fication and response data streams.

1 23. (PREVIOUSLY PRESENTED) The computer as in claim 19, further comprising:

2 means for checking whether a bandwidth requested by a user interfacing said
3 computer has been actually allocated for a constant bit rate over the connection using said
4 verification and response data streams.

1 24. (PREVIOUSLY PRESENTED) A computer readable media, comprising:

2 said computer readable media having instructions written thereon for execution on
3 a processor for the practice of the method of claim 5 or claim 9.

- 1 25. (PREVIOUSLY PRESENTED) Electromagnetic signals propagating on a computer
2 network, comprising:
3 said electromagnetic signals carrying instructions for execution on a processor for
4 the practice of the method of claim 5 or claim 9.